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WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY.

E. A. BIRGE, Director.

Hydrographic Map

OF

GREEN LAKE,

Green Lake County, Wis.

GEOLOGICAL & NATURAL HISTORY SURVEY
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1803 18

Survey in Charge of C. Dwight Marsh.
Field Work by C. Dwight Marsh and
E. F. Chandler, 1898.

MADISON, WISCONSIN
1899

Explanation of Map.

This map shows by means of contour lines and tints the hydrography of Green lake. The observations on which the map is based were made under the direction of Professor C. Dwight Marsh of Ripon; most of them during the winter of 1897-8 and in the following summer. The positions of the soundings are indicated on the map by black dots. The position of each sounding was accurately determined by means of chain and compass, when surveying through the ice, and when the surveying was done during the summer, by means of two transits, or, in the case of soundings near the shore, by the stadia method. The outline of the lake was accurately surveyed by Mr. E. F. Chandler in the summer of 1898, and is more accurately represented on this map than on any hitherto published.

The outline of the lake indicates, of course, the outline of the water at its level in 1898. The line marked "20" indicates the 20-ft. level and is drawn through the points where the water has a depth of 20 feet. It shows also what the outline of the lake would be if the water were lowered 20 feet. The next line marks the depth of 40 feet, and so on with the succeeding lines. The space between any line and that next inside of it indicates the distance required for the depth of the water to increase 20 feet. The lines therefore indicate the slope of the bottom. Where they are close together, as on the southern shore, the slope is steep and where they are far apart, as at the eastern end, the slope is correspondingly gradual. It will be seen that the bottom of the lake slopes downward regularly to a maximum depth of nearly 240 feet in the western part, and that the bottom is singularly free from irregularities; the only considerable shoals being one off Malcolm Bay, and one at the eastern end of the lake.

In order to make plainer the shape of the basin the depth of the water has been indicated by a blue color printed in five tints. The shoal water to the depth of 20 ft. has the lightest tint; the second tint indicates the depth from 20 to 80 ft.; the third, the depth from 80 to 140 ft.; the fourth, from 140 to 200 ft.; while the deepest tint is given to the water in the western part of the lake, which has a depth of 200 ft. and more.

In the sections of the lake, the horizontal and vertical scales are the same as those of the map, so that the sections show the natural relation between the depth and the length of the lake, and give the natural slope of the bottom. They show plainly that even the deepest lakes are shallow in proportion to their area. Green lake is nearly 100 feet deeper than any other inland lake in Wisconsin, which has been sounded.

HYDROGRAPHIC MAP OF GREEN LAKE WISCONSIN

PREPARED FROM SURVEYS BY THE

WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY

E.A. BIRGE, DIRECTOR.

Survey in charge of C. Dwight Marsh.

SURVEY BY C. DWIGHT MARSH AND E.F. CHANDLER.

Contour Interval = 20 Ft.

Scale in Miles.

0 ¼ ½ ¾ 1 Mile

1898

20 FEET.
80 "
140 "
200 "

DARTFORD
HOTEL
OUTLET
MAPLEWOOD HOTEL
DARTFORD BAY
OAKWOOD HOTEL
PLEASANT PT.
HOTEL
TERRACE BEACH
SILVER CREEK
SHERWOOD FOREST HOTEL
THE OAKS
MALCOLM BAY
PIGEON COVE
LONE TREE PT.
NORWEGIAN BAY
LUCAS BLUFF
FOREST GLEN
HOTEL SPRING GROVE
WOODS BAY
TULETA HILLS
QUIMBY'S BAY
SUGAR LOAF
DICKINSONS BAY
BLACKBIRD PT
Spring Lake
Not Surveyed
Twin Lakes
SHORE
SILVER CREEK

NOTE: *IN THE FOLLOWING CROSS-SECTIONS THE VERTICAL SCALE IS THE SAME AS THE HORIZONTAL.*

C — 200 220 230 — D

TOTAL LENGTH 1.4 MILES

A — 100 230 237 230 155 207 20 — B

TOTAL LENGTH 2 MILES

MALCOLM BAY F — 20 20 140 200 200 160 — TULETA HILLS E

TOTAL LENGTH 1.6 MILES

DARTFORD H — 20 40 40 23 40 140 150 140 — LUCAS BLUFF G

TOTAL LENGTH 1.7 MILES

LONGITUDINAL SECTION ALONG AXIS OF LAKE, I.J.K.L.

SHORE I — 100 160 237 230 J 220 213 206 160 K 100 — SILVER CREEK

TOTAL LENGTH OF LAKE = 7.7 MILES.

TOTAL AREA OF LAKE 11.5 SQUARE MILES.